

**ABSTRACT**

The present invention relates to a single step process for the synthesis of nanoparticles of phase pure ceramic oxides of a single or a multi-component system comprising one or more metal ions. The process comprises preparing a solution containing all the required metal ions in stoichiometric ratio by dissolving their respective soluble salts in an organic solvent or in water, preparing a precursor, adjusting the nitrate/ammonia content in the system, and heating the system.